



## Department of Energy

Golden Field Office  
1617 Cole Boulevard  
Golden, Colorado 80401-3393

September 28, 2008

TO: Distribution List

SUBJECT: Notice of Scoping – South Central Oregon Economic Development District  
Lakeview Geothermal Project

The U.S. Department of Energy (DOE) is proposing to provide Congressionally Directed Federal Funding to the South Central Oregon Economic Development District (SCOEDD) to fund a geothermal direct use and small scale power generation project in Lakeview, Oregon. Pursuant to the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021), DOE is preparing a draft Environmental Assessment (EA) to:

- Identify any adverse environmental effects that cannot be avoided should this proposed action be implemented.
- Evaluate viable alternatives to the proposed action, including a no action alternative.
- Describe the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity.
- Characterize any irreversible and irretrievable commitments of resources that would be involved should this proposed action be implemented.

### Project Description

#### *Direct Use System*

The direct use well and pipeline would be used to heat various town buildings (Lakeview District Hospital, Lakeview High School, Daly Middle School, Fremont School, A.D. Hay School). Geothermal water would be extracted at the production well site, transferred via an underground pipeline, cycled through the buildings, and then reinjected into the reservoir at a reinjection well site. All buildings receiving heating from the system would require some form of equipment upgrade, except for the hospital. A short spur pipeline would also be constructed to allow heating at the Lakeview Industrial Park in the future.

The direct use system would require drilling a production well (approximately 600 feet deep) at the Barry Well site near US Highway 395 and drilling an injection well (approximately 400 to 500 feet deep) 0.5 miles west of the Barry Well site near an existing railroad right of way. The proposed pipeline would extend from the production well to the reinjection well, and then follow the railroad right of way north to the Town. This pipeline would extend further north along the railroad tracks before heading east to Lakeview High School and Daly Middle School. Another spur would be located at a point just south of Deadman's Creek. This spur would extend eastward



from the railroad tracks to Lakeview District Hospital, A.D. Hay School, and Fremont School. The total length of the pipeline would be approximately 3.4 miles

#### *Power Generation System*

A small, 200-kW geothermal power plant is proposed just south of Geyser View Road. The power plant would be constructed at the location of an existing geothermal production well (North production well). The North production well is currently used to provide heat to the Warner Creek Correctional Facility. The power plant would utilize geothermal fluid from the existing production well. Work would be completed on another production well (the Utley well) such that the Utley well could be used to augment the geothermal fluid flow to the power plant. Geothermal fluid from the system would continue to be injected at the existing hot water reinjection well off of McDonalds Road. Water for use in the proposed cooling tower would be obtained from the Lakeview municipal water system.

The power generation system would require the drilling of a new cold water injection well to the east of the power plant at the intersection of Geyser View Lane and McDonalds Road for injection of cold water used for the proposed cooling tower. New pipelines would have to be constructed from the Utley well to the power plant and from the cold water injection well to the cooling tower. Several small connector pipelines would need to be installed to connect existing facilities to the power plant.

The power generated by the system would be sold to PacifiCorp. A power line from the geothermal power plant to the existing power line on the south side of Geyser View Lane would be connected underground or above ground, determined in coordination with PacifiCorp.

#### **Project Location**

The proposed project area would be located in and around Lakeview, Oregon. The components would be located in Range 20 East, and Townships 38 South and 39 South, of the Willamette Base and Meridian. The proposed geothermal direct use system would originate approximately 1 mile south of Lakeview at the Barry well site, located just east of US Highway 395. The pipeline from this site would extend west, then north into Lakeview. The proposed power generation system would be located approximately 1 mile north of Lakeview off of Geyser View Lane. The project location is shown in Figures 1 and 2.

#### **Probable Environmental Effects/Issues Scoped for the Environmental Assessment (EA)**

The EA will describe all potential impacts on the environment caused by the project and will identify possible mitigation measures to reduce or eliminate those impacts. The EA will describe the potentially affected environment and the impacts that may result to:

- Meteorology/Air Quality
- Geology/Soils
- Mineral Resources (including geothermal)
- Biological Resources
- Water Resources
- Cultural Resources

- Land Use
- Noise
- Infrastructure
- Aesthetics
- Socioeconomics (including Mineral Rights)

### **Development of a Reasonable Range of Alternatives**

DOE is required to consider a reasonable range of alternatives to the proposed action during the environmental review. The definition of alternatives is governed by the "rule of reason." An EA must consider a reasonable range of options that could accomplish the agency's purpose and need and reduce environmental effects. Reasonable alternatives are those that may be feasibly carried out based on environmental, technical, and economic factors.

The No Action alternative will be addressed. The need for project redesign, or a project alternative, will be determined during the course of environmental review.

### **Public Scoping**

This letter will be available to all interested state, local, and federal agencies to supply input on issues to be discussed in the EA. Agencies should identify the issues, within their statutory responsibilities, that should be considered in the EA. The general public is also invited to submit comments on the scope of the EA on or before October 28, 2009. No formal public scoping meeting is currently planned for this project. Please send your comments regarding the scope and content of the EA, along with the name and address of an appropriate contact person to:

**Tania Treis**  
**c/o RMT, Inc.**  
**4 West Fourth Avenue, Suite 303, San Mateo, CA 94402**  
**[tania.treis@rmtinc.com](mailto:tania.treis@rmtinc.com)**

This letter and the draft EA, when available, will be posted to the Golden Field Office electronic reading room: [http://www.eere.energy.gov/golden/reading\\_room.aspx](http://www.eere.energy.gov/golden/reading_room.aspx).

Thank you for your participation in the environmental review process.

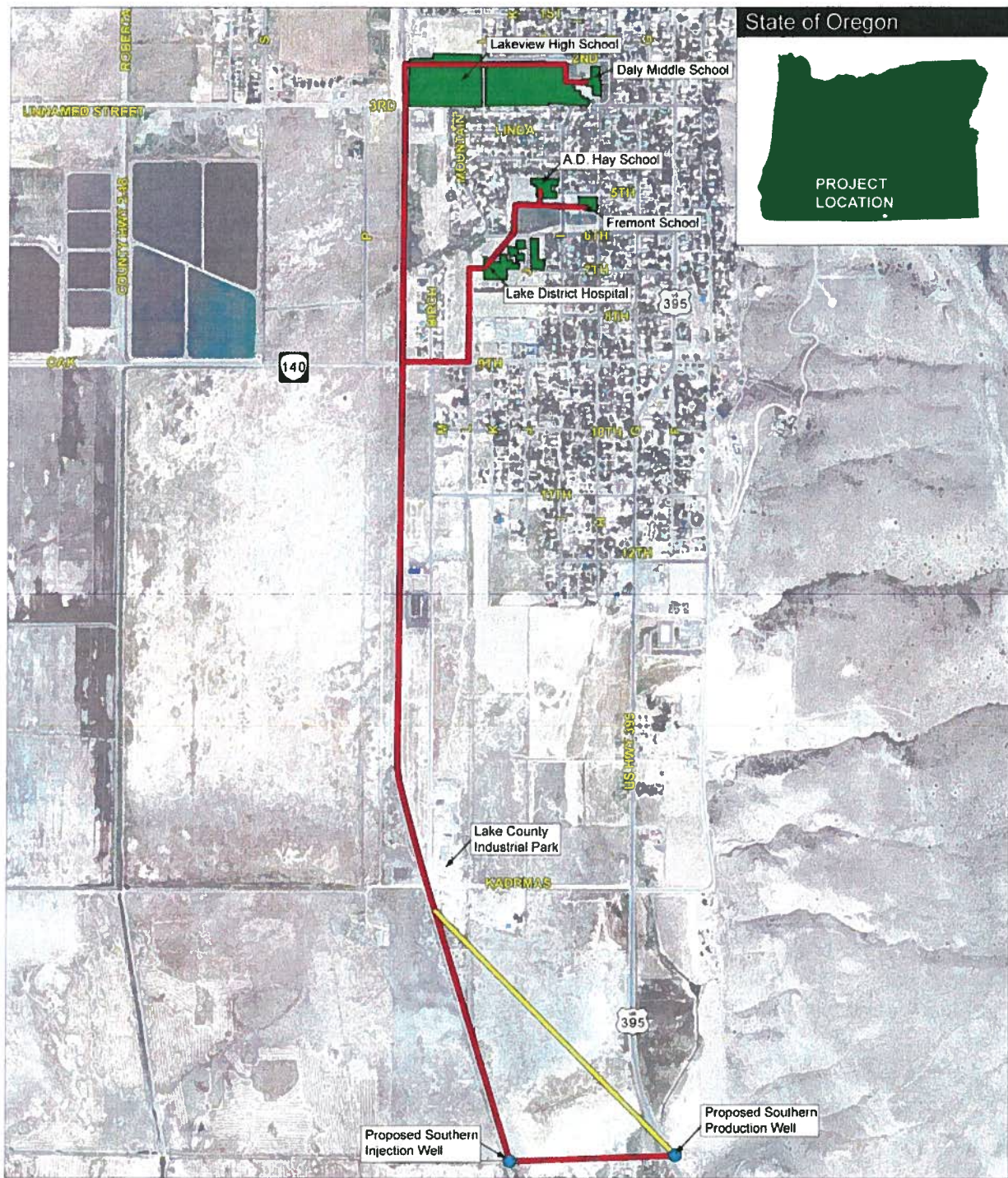
Sincerely,



Steve Blazek

NEPA Compliance Officer

**Figure 1: Proposed Project Elements - Direct Use System**



SOURCE: www.OregonExplorer.info 2009, and RMT Inc. 2009

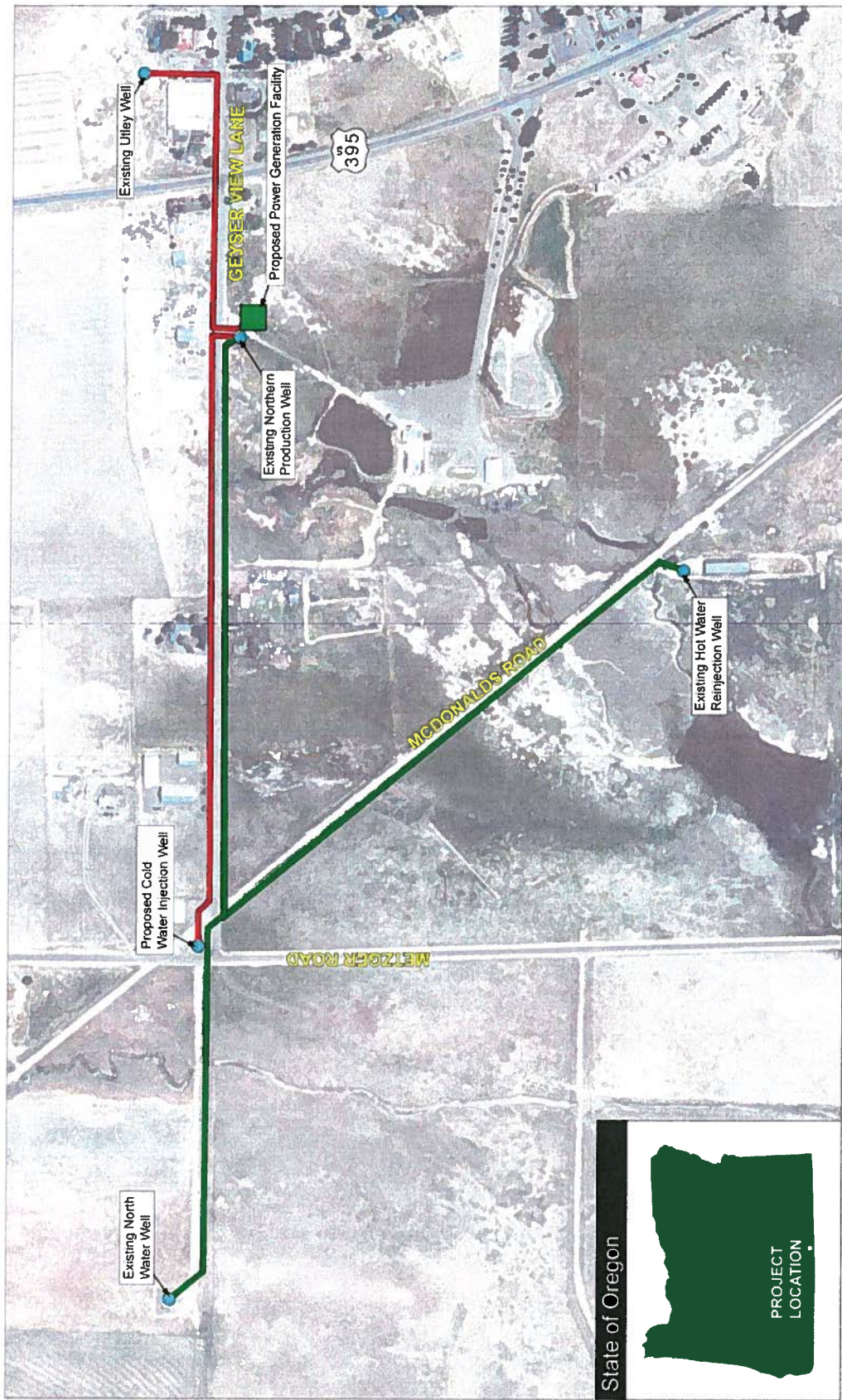
**LEGEND**



- Proposed Pipeline Route
- Alternative Pipeline Route
- Well Site
- Project Building
- 395 U.S. Highway
- 66 Oregon State Route

0 0.5 1 Mile

**Figure 2: Proposed Project Elements - Power Generation**



SOURCE: [www.OregonExplorer.info](http://www.OregonExplorer.info) 2009 and RMT Inc. 2009

# **LEGEND**

- Proposed Pipeline Route
- Existing Pipeline Route
- Well Site
- Power Generation Facility
- U.S. Highway



0 500 1,000 Feet